



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

5073 7590 05/13/2008
BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER	
LY, ANH VU H	
ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 05/13/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,189	03/26/2004	Mark Grayson	062891.1216	8023

TITLE OF INVENTION: PROVIDING A MULTICAST SERVICE IN A COMMUNICATION NETWORK

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	08/13/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

5073 7590 05/13/2008
BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/810,189 03/26/2004

Mark Grayson

062891.1216

8023

TITLE OF INVENTION: PROVIDING A MULTICAST SERVICE IN A COMMUNICATION NETWORK

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	08/13/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
LY, ANH VU H	2616	370-312000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB-122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB-47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,189	03/26/2004	Mark Grayson	062891.1216	8023
5073	7590	05/13/2008	EXAMINER	
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			LY, ANH VU H	
			ART UNIT	PAPER NUMBER
			2616	
			DATE MAILED: 05/13/2008	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/810,189

Examiner

ANH-VU H. LY

Applicant(s)

GRAYSON ET AL

Art Unit

2616

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed February 18, 2008.
2. ☒ The allowed claim(s) is/are 1-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Keiko Ichiye on May 05, 2008.

The application has been amended as follows:

In The Claims

1. (Currently Amended) A method to provide a multicast service, comprising:
maintaining multicast service information at an application server, the multicast service information describing a multicast service having an associated subscriber, the multicast service operates to deliver multicast content from a multicast source;
determining a cell supporting a user device associated with the subscriber;
initiating creation of a bearer path for the multicast ~~service~~; service by instructing, from the application server, an enabler mobile to establish one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services and to set up and maintain the bearer path; and
directing ~~an~~ the enabler mobile to facilitate delivery of the multicast content to the user device using the bearer path, the enabler mobile located in the cell for which the enabler mobile enables delivery, the enabler mobile substantially fixed in position and distinct from a base

station operable to communicate the multicast content to the user device; the enabler mobile further distinct from a base station controller.

6. (Currently Amended) A server to provide a multicast service, comprising:
a memory operates to store multicast service information, the multicast service information describing a multicast service having an associated subscriber, the multicast service operates to deliver multicast content from a multicast source; and

one or more processors coupled to the memory and operate to:

determine a cell supporting a user device associated with the subscriber;

initiate creation of a bearer path for the multicast ~~service~~; service by instructing, from an application server, an enabler mobile to establish one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services and to set up and maintain the bearer path; and

directing ~~an~~ the enabler mobile to facilitate delivery of the multicast content to the user device using the bearer path, the enabler mobile located in the cell for which the enabler mobile enables delivery, the enabler mobile substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device; the enabler mobile further distinct from a base station controller.

11. (Currently Amended) A computer readable medium encoded with computer executable logic to provide a multicast service, the logic operable to:

maintain multicast service information at an application server, the multicast service information describing a multicast service having an associated subscriber, the multicast service operable to deliver multicast content from a multicast source;

determine a cell supporting a user device associated with the subscriber;

initiate creation of a bearer path for the multicast service; service by instructing, from the application server, an enabler mobile to establish one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services and to set up and maintain the bearer path; and

directing ~~an~~ the enabler mobile to facilitate delivery of the multicast content to the user device using the bearer path, the enabler mobile located in the cell for which the enabler mobile enables delivery, the enabler mobile substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device; the enabler mobile further distinct from a base station controller.

16. (Currently Amended) A method to provide a multicast service, comprising:

receiving at an enabler device an instruction, from an application server, to create a radio access bearer for a multicast service, the multicast service operates to deliver multicast content from a multicast source, the enabler device assigned to a cell supporting a user device;

creating and maintaining the radio access bearer for the multicast service in response to the instruction;

opening ~~a Packet Data Protocol context~~ one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services for the radio access bearer; bearer in response to the instruction; and

directing the enabler device to facilitate delivery of the multicast content to the user device using the radio access bearer, the enabler device located in the cell for which the enabler device enables delivery, the enabler device substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device; the enabler device further distinct from a base station controller.

18. (Currently Amended) A enabler device to provide a multicast service, comprising:

an interface operates to receive an instruction, from an application server, to create a radio access bearer for a multicast service, the multicast service operates to deliver multicast content from a multicast source, the enabler device located in a cell supporting a user device, the enabler device located in the cell for which the enabler device enables delivery of multicast content, the enabler device substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device, the enabler device further distinct from a base station controller; and

one or more processors coupled to the interface and operate to:

create and maintain the radio access bearer for the multicast service in response to the instruction;

open a ~~Packet Data Protocol context~~ one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services for the radio access bearer; bearer in response to the instruction; and

enable delivery of the multicast content to the user device using the radio access bearer.

20. (Currently Amended) A computer readable medium encoded with computer executable logic to provide a multicast service, the logic operable to:

receive at an enabler device an instruction, from an application server, to create a radio access bearer for a multicast service, the multicast service operates to deliver multicast content from a multicast source, the enabler device assigned to a cell supporting a user device;

create and maintain the radio access bearer for the multicast service in response to the instruction;

opening a ~~Packet Data Protocol context~~ one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services for the radio access bearer; bearer in response to the instruction; and

direct the enabler device to facilitate delivery of the multicast content to the user device using the radio access bearer, the enabler device located in the cell for which the enabler device enables delivery, the enabler device substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device; the enabler device further distinct from a base station controller.

22. (Currently Amended) A method to provide a multicast service, comprising:

activating at a multicast gateway support node a Packet Data Protocol context for a multicast service, the multicast service facilitated by a plurality of enabler mobiles located in one or more cells, the enabler mobiles operate to establish the Packet Data Protocol context for the multicast services and to set up and maintain a bearer path in response to an instruction from an application server, the plurality of enabler mobiles operates to deliver multicast content from a multicast source, each enabler mobile of the plurality of enabler mobiles substantially fixed in position and distinct from a base station operable to communicate the multicast content from the multicast source, each enabler mobile of the plurality of enabler mobiles further distinct from a base station controller, each enabler mobile located in the cell for which the enabler mobile enables delivery of multicast content;

receiving an instruction to join a multicast tree for the multicast service; and
joining the multicast tree in response to the instruction.

24. (Currently Amended) A node to provide a multicast service, comprising:

an interface operates to:

receive an instruction to activate a Packet Data Protocol context for a multicast service, the multicast service facilitated by a plurality of enabler mobiles located in one or more cells, the enabler mobiles operate to establish the Packet Data Protocol context for the multicast services and to set up and maintain a bearer path in response to an instruction from an application server, the plurality of enabler mobiles operates to deliver multicast content from a multicast source, each enabler mobile of the plurality of enabler mobiles substantially fixed in position and distinct

from a base station operable to communicate the multicast content from the multicast source, each enabler mobile of the plurality of enabler mobiles further distinct from a base station controller, each enabler mobile located in a cell for which the enabler mobile enables delivery of multicast content;

receive an instruction to join a multicast tree for the multicast service; and

one or more processors coupled to the interface and operate to:

activate the Packet Data Protocol in response to the instruction to activate the Packet Data Protocol context; and

join the multicast tree in response to the instruction to join the multicast tree.

26. (Currently Amended) A computer readable medium encoded with computer executable logic to provide a multicast service, the logic operable to:

activate at a multicast gateway support node a Packet Data Protocol context for a multicast service, the multicast service facilitated by a plurality of enabler mobiles located in one or more cells, the enabler mobiles operate to establish the Packet Data Protocol context for the multicast services and to set up and maintain a bearer path in response to an instruction from an application server, the plurality of enabler mobiles operates to deliver multicast content from a multicast source, each enabler mobile of the plurality of enabler mobiles substantially fixed in position and distinct from a base station operable to communicate the multicast content from the multicast source, each enabler mobile of the plurality of enabler mobiles further distinct from a base station controller, each enabler mobile located in a cell for which the enabler mobile enables delivery of multicast content;

receive an instruction to join a multicast tree for the multicast service; and
join the multicast tree in response to the instruction.

28. (Currently Amended) A method to provide a multicast service, comprising:

maintaining multicast service information at an application server, the multicast service information describing a multicast service having an associated subscriber, the multicast service operates to deliver multicast content from a multicast source;

initiating creation of a bearer path for the multicast service by communicating an instruction from the application server to at least one enabler mobile of a plurality of enabler mobiles, the instruction to establish one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services and to create and maintain a radio access bearer for the multicast service, the at least one enabler mobile of the plurality of enabler mobiles associated with a cell supporting a user device associated with the subscriber; and

directing the at least one enabler mobile of the plurality of enabler mobiles to facilitate delivery of the multicast content to the user device using the bearer path, the plurality of enabler mobiles located in one or more cells, each enabler mobile of the plurality of enabler mobiles substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device, each enabler mobile of the plurality of enabler mobiles further distinct from a base station controller.

33. (Currently Amended) A system to provide a multicast service, comprising:

an application server operates to:

maintain multicast service information describing a multicast service having an associated subscriber, the multicast service operates to deliver multicast content from a multicast source; and

initiate creation of a bearer path for the multicast service by communicating an instruction to create a radio access bearer for the multicast service; and

an enabler device associated with a cell supporting a user device associated with the subscriber, the enabler device substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device, the enabler device further distinct from a base station controller, the enable device located in the cell and operates to:

receive an instruction, from the application server, to create the radio access bearer for the multicast service;

create and maintain the radio access bearer in response to the instruction;

establish one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services in response to the instruction; and

enable delivery of the multicast content to the user device using the bearer path, the enabler device located in the cell for which the enabler device enables delivery.

38. (Currently Amended) A computer readable medium encoded with computer executable logic to provide a multicast service, the logic operable to:

maintain multicast service information at an application server, the multicast service information describing a multicast service having an associated subscriber, the multicast service operates to deliver multicast content from a multicast source;

initiate creation of a bearer path for the multicast service by communicating an instruction from the application server to an enabler device, the instruction establishes one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services and creates and maintains a radio access bearer for the multicast service, the enabler device located in a cell supporting a user device associated with the subscriber, the enabler device substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device, the enabler device further distinct from a base station controller; and

enable delivery, by the enabler device, of the multicast content to the user device using the bearer path, the enabler device located in the cell for which the enabler device enables delivery.

43. (Currently Amended) A system to provide a multicast service, comprising:

means for maintaining multicast service information at an application server, the multicast service information describing a multicast service having an associated subscriber, the multicast service operates to deliver multicast content from a multicast source;

means for initiating creation of a bearer path for the multicast service by communicating an instruction from the application server to an enabler device, the instruction establishes one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services and creates and maintains a radio access bearer for the multicast service, the enabler device located in a cell supporting a user device associated with the subscriber, the enabler device substantially fixed in position and distinct from a base station operable to communicate

the multicast content to the user device, the enabler device further distinct from a base station controller; and

means for enabling delivery of the multicast content to the user device using the bearer path, the means for enabling delivery located in the cell for which the means for enabling delivery enables delivery.

44. (Currently Amended) A method to provide a multicast service, comprising:

maintaining multicast service information at an application server, the multicast service information describing a multicast service having an associated subscriber, the multicast service operates to deliver multicast content from a multicast source;

establishing a multicast service level of the multicast service in accordance with a cell supporting a user device of a plurality of user devices, the user device associated with the subscriber;

initiating creation of a bearer path for the multicast service by communicating an instruction from the application server to an enabler device of a plurality of enabler devices, the instruction establishes one or more radio access bearer (RAB)/Packet Data Protocol (PDP) contexts for one or more multicast services and creates and maintains a radio access bearer for the multicast service, the enabler device located in the cell supporting the user device associated with the subscriber, the enabler device substantially fixed in position and distinct from a base station operable to communicate the multicast content to the user device, the enabler device further distinct from a base station controller;

enabling delivery, by the enabler device, of the multicast content to the user device using the bearer path by:

activating at a multicast gateway support node a Packet Data Protocol context for the multicast service; and

joining the multicast gateway support node to a multicast tree for the multicast service, the enabler device located in the cell for which the enabler device enables delivery;

communicating one or more parameters associated with the bearer path to the user device, the user device operates to use the parameters to receive the multicast content;

receiving at the multicast gateway support node the multicast content communicated using a plurality of data packets; and

duplicating the data packets to create duplicated data packets for each enabler device of the plurality of enabler devices.

Allowable Subject Matter

2. Claims 1-44 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or fairly suggest initiating creation of a bearer path for a multicast service by instructing, from an application server, an enabler mobile to establish one or more radio access bearer (RAB)/Packet Data Protocol contexts for one or more multicast services and setting up and maintaining the bearer path and directing the enabler mobile to deliver multicast content to the user device; wherein the enabler mobile located in a cell supporting a user device associated with a subscriber, fixed in position, distinct from a base

station and distinct from a base station controller, as specified in independent claims 1, 6, 11, 16, 18, 20, 22, 24, 26, 28, 33, 38, 43, and 44.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sarkkinen et al (US Patent No. 6,701,155 B2) discloses network initialized packet data protocol context activation for multicast/broadcast services.

Francoeur et al (US Patent No. 7,039,026 B2) discloses architecture for implementation of RAB manager and PDCP process.

Casati et al (US 2003/0039232 A1) discloses method of sending a multicast message in such as a GPRS/UMTS network.

Kim et al (US 2004/0087320 A1) discloses method of transmitting/receiving control message in a mobile communication system providing multimedia broadcast/multicast service.

Kim et al (US 2004/0185837 A1) discloses method for managing service context for paging user equipment in a multimedia broadcast/multicast service.

Bos et al (US Patent No. 6,996,410 B2) discloses method and broadcast multicast service server for data broadcasting in third generation networks.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH-VU H. LY whose telephone number is (571)272-3175.

The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Avl

/Anh-Vu H Ly/
Primary Examiner, Art Unit 2616